



State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

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Petition to Opt New Hampshire Out
of the Federal Reformulated Gasoline Program

New Hampshire Governor Jeanne Shaheen wrote to U.S. Environmental Protection Agency (EPA) Administrator Christine Todd Whitman on April 16, 2001 conveying the intent of the State of New Hampshire to opt out of the federal Reformulated Gasoline (RFG) program. Significant quantities of oxygenating compounds are required to be present in gasoline under the federal RFG program. Since the federal RFG program commenced in 1995, the oxygenate methyl tertiary-butyl ether (MtBE), has become a significant contamination threat to New Hampshire's groundwater and surface water resources. Existing federal statutory and regulatory barriers to reducing and/or phasing-out the use of MtBE leave states with few constructive options to rectify this environmental and public health problem. New Hampshire has enjoyed the notable air quality benefits of the federal RFG program, and would like to maintain its contribution to air quality. At this point, however, there appears to be no effective, legal route by which New Hampshire can address the MtBE problem except to opt out of the federal RFG program.

MtBE is the additive most often used by petroleum refiners serving the Northeast to meet the federal Clean Air Act (CAA) §211k(2)(B) requirement that RFG contain 2.0 percent oxygen by weight (i.e., the "oxygen mandate"). Since the MtBE problem originated with this statutory provision, the best resolution is Congressional action to repeal the oxygenate mandate. Having invested considerable effort and resources pursuing such action over the last two years, however, New Hampshire is concerned that Congressional action to address the underlying origin of the MtBE problem may not happen in the near future. Faced with no other viable, effective, or legal alternative under the federal Clean Air Act to reduce or eliminate MtBE concentrations in New Hampshire's gasoline, the State is compelled to submit this formal petition to opt out of the federal RFG program.

Under authority provided in §211(k)(6) of the federal Clean Air Act, New Hampshire petitioned EPA to participate in the federal RFG program on October 22, 1991. Notice of EPA's approval of this request was posted in the Federal Register on December 23, 1991 (56 FR 66444). The State of New Hampshire, in accordance with the procedures outlined 40 CFR 80.72, now hereby petitions EPA to opt out of the federal RFG program and to remove all New Hampshire counties from the list of "covered areas" delineated in 40 CFR 80.70. Upon approval of this petition by EPA, the four-county area in New Hampshire where federal RFG is currently required (specifically Hillsborough, Merrimack, Rockingham, and Strafford counties, as shown in Attachment 1) will no longer be subject to the requirements of the federal Clean Air Act Section 211(k) and the federal RFG rule (40 CFR Part 80) for gasoline supplied and sold in those areas, including the specification that such gasoline contain 2% oxygen by weight.

Based on a review of the applicable statutory provisions and EPA's RFG rule, as well as discussions with EPA's regional staff, New Hampshire understands that the submissions required for EPA approval of the State's request to opt out of the RFG program include:

- A formal opt out request pursuant to 40 CFR 80.72, including a list of all prior State Implementation Plan (SIP) submittals which utilize federal RFG emission reduction benefits – benefits that must be replaced upon eliminating federal RFG in New Hampshire;
- SIP revisions containing the state rules promulgated to replace the emission reductions benefits provided by federal RFG; and
- A request for a waiver of CAA §211(c)(4)(A), pursuant to §211(c)(4)(C), in order to adopt a state control measure that affects federally regulated fuels or fuel component.

This document is the formal request to opt out of the federal RFG program, and it outlines all New Hampshire SIP submittals that use RFG emission benefits to satisfy federal emission reduction requirements. It also describes New Hampshire's plans for satisfying those requirements via other means. The New Hampshire Department of Environmental Services (DES) has initiated expedited rulemaking procedures to enact replacement emissions reductions and is preparing the necessary SIP amendments.

RFG has been included in certain New Hampshire SIP revisions as a mobile source emissions control measure for volatile organic compounds (VOCs), nitrogen oxides (NO_x), and carbon monoxide (CO). Attachment 2 lists these SIP revisions and their approval status at EPA. As detailed further below, New Hampshire will replace federal RFG as a VOC and/or NO_x control measure by adopting rules implementing "Oxy-Free Reformulated Gasoline" (OFRFG) that will be substantively identical to federal RFG, except that no minimum oxygen content will be required.

New Hampshire's §211(c)(4)(A) waiver request will be submitted concurrent with the State's SIP modifications in order to enact state rules on OFRFG. At the present time, New Hampshire's ozone nonattainment areas have achieved "clean data" status, where three-year average monitored ozone concentrations are consistent with the National Ambient Air Quality Standard (NAAQS). The State of New Hampshire believes that the mobile source VOC and NO_x benefits of federal RFG have contributed to this achievement, and that these fuel-related air quality benefits must be retained in order to meet the ozone NAAQS on a going-forward basis. New Hampshire's approach of substituting OFRFG for federal RFG retains these benefits, simplifies the demonstration of equivalency with RFG, can be more readily implemented than other control measures, and should accommodate timely approval of this petition.

The CAA and the federal RFG rule in 40 CFR 80.41 impose requirements on refiners that RFG meet a complex combination of specifications and emissions reduction performance standards for VOCs and NO_x. OFRFG will be adopted as a state rule that will incorporate by reference applicable federal RFG requirements, except for the oxygen requirement. New Hampshire recognizes that to the extent that OFRFG is equivalent to federal RFG, OFRFG may also result in lower toxic emissions. However, the State believes that maximizing the similarity

between OFRFG and federal RFG will provide greater consistency with respect to recently adopted federal regulations relative to gasoline toxics and in refiners' production processes, resulting in lower costs.

New Hampshire's plans for OFRFG are consistent with the findings and recommendations of EPA's independent Blue Ribbon Panel on the use of oxygenates in gasoline, which recommended elimination of the minimum oxygen requirement for federal RFG. This position was supported by EPA and the American Petroleum Institute, both of which were represented on the panel. DES anticipates that refiners serving New Hampshire will seek to reduce MtBE levels for both environmental and economic reasons. MtBE is one of the most expensive components of gasoline, so refiners may reduce MtBE levels simply to reduce costs. In addition, since MtBE poses such a threat to water resources, it increases the potential environmental liability claims that refiners, distributors, and retailers face.

Appropriate testing, certification, and enforcement procedures for OFRFG will be adopted as necessary after consultation with EPA's regional staff. In combination, these steps will ensure that OFRFG provides the air quality benefits necessary to meet federal emission reduction requirements and the commitments reflected in the cited New Hampshire SIP revisions.

OFRFG will be required in the same areas of New Hampshire where federal RFG is currently required (i.e., Hillsborough, Merrimack, Rockingham, and Strafford counties), and will – by definition – provide reductions in VOC and NO_x emissions equivalent to federal RFG. Relative to the State's use of federal RFG for CO reductions, New Hampshire will demonstrate that new vehicle and fuel standards (including the federal Tier 2 Vehicle/Gasoline Sulfur Rule), coupled with New Hampshire's fleet turnover, will provide the necessary CO emissions reductions to maintain the integrity of the State's CO SIP commitments.

Attachment 2 shows that New Hampshire has seven SIP revisions that use RFG as a control measure to achieve federally required emission reductions. Of these, five include RFG as a VOC and/or NO_x control measure, and three of these have received final approval from EPA. Two SIP revisions include RFG as a CO control measure to maintain attainment of the federal CO standard, and both of these have received final approval from EPA. The following sections address each of these SIP submittals, describing RFG's contribution to the required emission reductions and how OFRFG will provide the same degree of emission reductions as the federal RFG program.

Approved SIP Revisions Which Include Federal RFG as a VOC Control Measure

Federal RFG is used as a VOC control measure in the following EPA-approved New Hampshire SIP revisions:

- *1996 15% VOC Rate of Progress Plan* (approved December 7, 1998, 63 FR 67405);
- *Stage II Comparability Analysis SIP Revision* (approved September 29, 1999, 64 FR 52434); and

- *Clean Fuel Vehicles SIP Revision* (approved September 29, 1999 64 FR 52434).

To replace federal RFG as a VOC control measure in these SIP revisions, DES will adopt rules implementing OFRFG. By definition, OFRFG will provide reductions in VOC emissions equivalent to federal RFG, so no change from the VOC emission reduction values in the existing SIP revisions is expected. OFRFG will be required in the same areas of New Hampshire that federal RFG is currently required (i.e., Hillsborough, Merrimack, Rockingham, and Strafford counties). Upon final adoption of its OFRFG rules, DES will submit corresponding modifications to these currently approved SIP revisions. Using an expedited process, DES intends to complete this rulemaking within 60 days.

Approved SIP Revisions Which Include Federal RFG as a CO Control Measure

Federal RFG is referenced as part of New Hampshire's demonstration that the Manchester and Nashua areas will continue to maintain attainment of the National Ambient Air Quality Standard (NAAQS) for CO, as outlined in the following maintenance plan SIP revisions:

- *Redesignation to Attainment for CO in Manchester, NH* (approved November 29, 2000, 65 FR 71060); and
- *Redesignation to Attainment for CO in Nashua, NH* (approved November 29, 2000, 65 FR 71060).

While some CO benefits are associated with the use of federal RFG in older vehicles, the Manchester and Nashua areas have monitored attainment with the CO NAAQS since 1990 (i.e., five years before the federal RFG program was implemented in New Hampshire). Federal RFG was clearly not necessary to attain the CO standard in these areas, and is not necessary to continue to maintain compliance with the CO NAAQS in the future. New Hampshire will submit revisions to these approved SIP provisions demonstrating that fleet turnover and new federal vehicle and fuel standards will provide adequate CO emissions reduction benefits to maintain the integrity of the State's CO SIP commitments. DES will work with EPA regional staff and CO modeling staff at the New Hampshire Department of Transportation to determine how best to make this demonstration, and to expeditiously follow through with all necessary submittals to correspondingly modify New Hampshire's currently approved CO SIP revisions. The timeframe for this process depends on the availability of EPA regional staff, but is anticipated to proceed expeditiously.

New Hampshire Post-1996 Reasonable Further Progress Plan SIP Revision

Federal RFG is used as a VOC control measure in New Hampshire's *Post-1996 Reasonable Further Progress Plan SIP Revision*. EPA approval of this SIP revision is currently pending. New Hampshire does not intend to withdraw this SIP revision. However, because opting out of the federal RFG program could affect both the administrative completeness and the ultimate approval of this SIP revision, the State will replace federal RFG as a VOC control measure by adopting rules to implement a OFRFG that will provide VOC emissions reductions equivalent to those achieved by federal RFG. As a result, no change from the VOC emission reduction values in the pending SIP revision is expected. As noted above, OFRFG will be

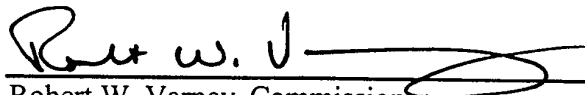
required in the same areas of New Hampshire that federal RFG is currently required (i.e., Hillsborough, Merrimack, Rockingham, and Strafford counties). Also as noted above, upon final adoption of its OFRFG rules, DES will submit a corresponding modification to this currently pending SIP revision. Using an expedited process, DES intends to complete this rulemaking within 60 days.

New Hampshire 2003 Ozone Attainment Demonstration SIP Revision

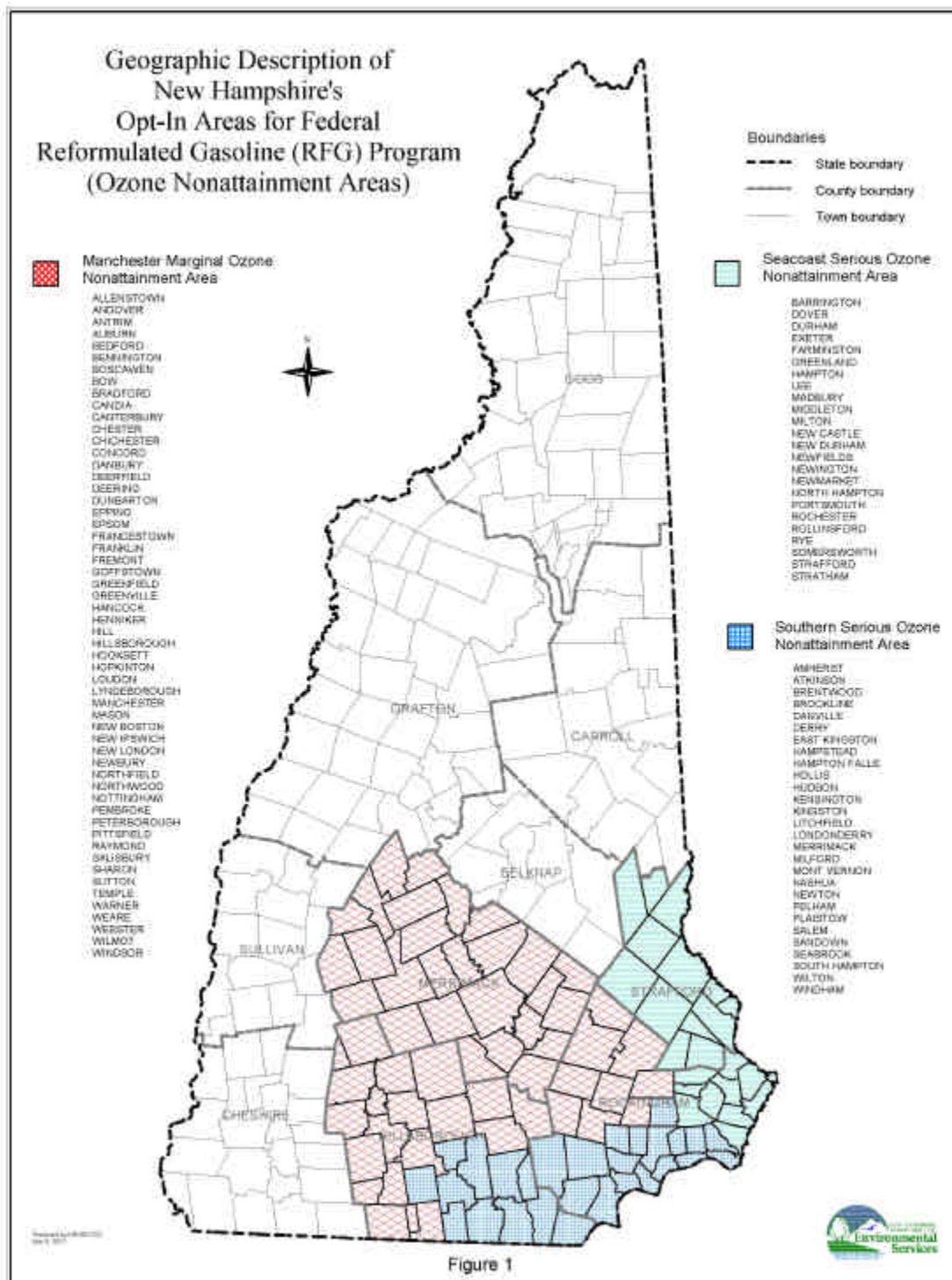
Federal RFG is used as a VOC and NO_x control measure in New Hampshire's 2003 *Ozone Attainment Demonstration SIP Revision*. Specifically, the photochemical modeling conducted to demonstrate attainment in this SIP revision assumed that federal RFG would be required in New Hampshire's four-county nonattainment area. EPA approval of this SIP revision is currently pending. New Hampshire does not intend to withdraw this SIP revision. However, because opting out of the federal RFG program could affect both the administrative completeness and the ultimate approval of this SIP revision, New Hampshire will replace federal RFG as a VOC and NO_x control measure by adopting rules to implement a OFRFG that will provide VOC and NO_x emissions reductions equivalent to those achieved by federal RFG. As a result, no change from the VOC and NO_x emission reduction values in the pending SIP revision is expected. Again, OFRFG will be required in the same areas of New Hampshire that federal RFG is currently required (i.e., Hillsborough, Merrimack, Rockingham, and Strafford counties). Upon final adoption of its OFRFG rules, DES will submit a corresponding modification to this currently pending SIP revision. Using the expedited process noted above, DES intends to complete this rulemaking within 60 days.

Currently, 40 CFR 80.72(c) prohibits states from opting out of the federal RFG program until January 1, 2004. But for this constraint, EPA and New Hampshire could together move rapidly to alleviate the increasing threat of MtBE contamination by enabling the State to opt out of the federal RFG program *prior to* January 1, 2004. Given the extent of the MtBE contamination that has resulted from the use of federal RFG, the State of New Hampshire re-emphasizes and reiterates the request made in Governor Shaheen's April 16, 2001 letter that EPA address this section of the federal RFG rule, either in a formal rulemaking process or through the use of enforcement discretion, to allow New Hampshire to pursue an earlier opt out date than January 1, 2004, and to provide such other relief as may be possible.

Submitted this 30th day of May in the year 2001,


Robert W. Varney, Commissioner
New Hampshire Department of Environmental Services

New Hampshire's Opt-In Areas for Federal RFG



ATTACHMENT 2.**Revisions to New Hampshire's State Implementation Plan
Which Rely Upon Federal RFG as a Control Measure**

State Implementation Plan (SIP) Revision	Submission Date	EPA Approval Status	Federal Register Notice
New Hampshire 1996 15% VOC Rate of Progress Plan	Submitted to EPA August 29, 1996	Approved by EPA December 7, 1998	63 FR 67405
New Hampshire Stage II Comparability Analysis	Submitted to EPA April 30, 1998	Approved by EPA September 29, 1999	64 FR 52434
New Hampshire Clean Fuel Vehicles SIP	Submitted to EPA June 7, 1994	Approved by EPA September 29, 1999	64 FR 52434
Carbon Monoxide (CO) SIP Revision Redesignation to Attainment for CO in Manchester, NH	Submitted to EPA December 11, 1998	Approved by EPA November 29, 2000	65 FR 71060
Carbon Monoxide (CO) SIP Revision Redesignation to Attainment for CO in Nashua, NH	Submitted to EPA November 30, 1998	Approved by EPA November 29, 2000	65 FR 71060
New Hampshire Post – 1996 Reasonable Further Progress Plan	Submitted to EPA September 27, 1996	EPA approval is <u>pending</u> . EPA found that the submittal was complete on October 9, 1996. New Hampshire fulfilled its obligations under the Clean Air Act Section 182(c)(2)(B) with the State's submittal on September 27, 1996.	n/a
New Hampshire 2003 Ozone Attainment Demonstration	Phase I submitted to EPA June 2, 1995; found complete by EPA December 2, 1995 Phase II submitted to EPA June 30, 1998	EPA approval is <u>pending</u> . New Hampshire fulfilled its obligations under the Clean Air Act Section 182(c)(2)(A) with the State's submittals on June 2, 1995 and June 30, 1998.	n/a